

**ABSTRACT OF THE INVENTION**

An illumination source for a LCOS projection system, is comprised of a vacuum cavity, an array of field emission display points on a first side of the vacuum cavity, and an array of resonant microcavity anodes on a second side of the vacuum cavity. The field emission display points are electron emitters used to excite array of resonant microcavity anodes to exclusively generate light of a selected color. The light is projected through an LCOS device to produce an image. A projector lens is provided for magnifying and focusing the image for projection on a screen.

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